

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A computerized dispatch method for Long-duration Processing Batch Equipment (LPBE), comprising the steps of:

retrieving equipment candidates having at least one capability compatible with that of the

LPBE from among a plurality of equipment tools preceding the LPBE in process

order;

selecting one of the candidates;

retrieving lots corresponding to the selected candidate;

grouping and sorting the lots, such that a plurality of batches is obtained, in which each

batch comprises a predetermined number of lots;

designating at least one of the batches as a reserve batch; and

executing a process by the selected candidate corresponding to the capability on the

reserve batch, and forwarding the processed batch to the LPBE.

2. (Original) The method of claim 1 further comprising performing a LPBE process on the batch forwarded from the selected candidate.

3. (Original) The method of claim 1 wherein the LPBE comprises furnace equipment.

4. (Original) The method of claim 1 wherein the equipment tools comprise cleaning equipment.

5. (Original) The method of claim 1 wherein grouping and sorting the lots comprises:
grouping the lots according to capability, such that a plurality of lot groups is obtained;
sorting the lots of each lot group according to a priority rule; and
sorting the lot groups according to the priority rule, such that the batches are obtained,
and each batch has a priority.

6. (Original) The method of claim 5 wherein the predetermined number of the lots in
each batch is the maximum number of lots that can be handled by the LPBE in one processing
cycle.

7. (Original) The method of claim 6 further comprising splitting each lot group if the
number of lots in the lot group exceeds the maximum number.

8. (Original) The method of claim 5 wherein the reserve batch is designated according
to the capability and the priority of each batch.

9. (Original) The method of claim 5 wherein the priority rule is used to determine
whether hot lots exist in any lot group.

10. (Original) The method of claim 5 wherein the priority rule is used to determine a
stage target of the lots in each lot group.

11. (Original) The method of claim 5 wherein the priority rule is used to determine the
priority of each lot group.

12. (Original) The method of claim 5 wherein the priority rule is used to determine the
quantity of wafers in each lot group.

13. (Original) The method of claim 5 wherein the priority rule is used to determine a queue time of the lots in each lot group.

14. (Currently Amended) A computerized dispatch system for Long-duration Processing Batch Equipment (LPBE), comprising:

a plurality of equipment tools; and

a LPBE having at least one process capability, able to identify equipment candidates having the same capability from among the equipment tools preceding the LPBE, select one candidate, retrieve lots corresponding to the selected candidate, group and sort the lots to obtain a plurality of batches according to a lot grouping and sorting method, in which each batch comprises a predetermined number of lots, and designate at least one of the batches as a reserve batch;

wherein the selected candidate executes a process corresponding to the capability on the reserve batch, and forwards the processed batch to the LPBE.

15. (Original) The system of claim 14 wherein the LPBE further performs a LPBE process on the batch forwarded from the selected candidate.

16. (Original) The system of claim 14 wherein the LPBE comprises furnace equipment.

17. (Original) The system of claim 14 wherein the equipment tools comprises cleaning equipment.

18. (Original) The system of claim 14 wherein the lot grouping and sorting method comprises the steps of:

grouping the lots according to capability, such that a plurality of lot groups is obtained;

sorting the lots of each lot group according to a priority rule; and

sorting the lot groups according to the priority rule, such that the batches are obtained,
and each batch has a priority.

19. (Original) The system of claim 18 wherein the predetermined number of the lots in each batch is the maximum number of lots that can be handled by the LPBE in one processing cycle.

20. (Original) The system of claim 19 wherein each lot group is further split if the number of lots in the lot group exceeds the maximum number.

21. (Original) The system of claim 18 wherein the reserve batch is designated according to the capability and the priority of each batch.

22. (Original) The system of claim 18 wherein the priority rule is used to determine whether hot lots exist in any lot group.

23. (Original) The system of claim 18 wherein the priority rule is used to determine a stage target of the lots in each lot group.

24. (Original) The system of claim 18 wherein the priority rule is used to determine the priority of each lot group.

25. (Original) The system of claim 18 wherein the priority rule is used to determine the quantity of wafers in each lot group.

26. (Original) The system of claim 18 wherein the priority rule is used to determine a queue time of the lots in each lot group.

27. (Currently Amended) A computerized dispatch method, comprising the steps of:
selecting one of equipment tools preceding a target equipment in process order, in which
the equipment tools have at least one capability compatible with that of the target
equipment;
designating at least one batch corresponding to the selected equipment tool before it is
processed by the selected equipment tool; and
forwarding the batch to the target equipment after it is processed by the selected
equipment tool;
wherein the batch comprises a predetermined number of lots being grouped and sorted
according to a priority rule and respective capability.

28. (Deleted)

29. (Original) The method of claim 28 wherein the predetermined number of the lots in
the batch is the maximum number of lots that can be handled by the target equipment in one
processing cycle.

30. (Original) The method of claim 27 wherein the batch is designated according to the
capability and a priority of the batch.

31. (Original) The method of claim 28 wherein the priority rule is used to determine
whether hot lots exist in each batch, a stage target of the lots in each batch, a priority of each
batch, the quantity of wafers in each batch, or a queue time of the lots in the batch.

32. (Currently Amended) A computerized dispatch method for Long-duration Processing Batch Equipment (LPBE), comprising the steps of:

reserving lots corresponding to at least one equipment tool preceding the LPBE in process order before the lots are processed by the equipment tool; and

forwarding the lots to the LPBE after it is processed by the equipment tool.

33. (Original) The method of claim 32 wherein the equipment tool has at least one capability compatible with that of the LPBE.

34. (Original) The method of claim 32 further comprising grouping and sorting the lots into batches according to a priority rule and respective capability.

35. (Original) The method of claim 34 wherein each batch comprises a predetermined number of the lots, and the predetermined number is the maximum number of lots that can be handled by the LPBE in one processing cycle.

36. (Original) The method of claim 34 wherein the priority rule is used to determine whether hot lots exist in each batch, a stage target of the lots in each batch, a priority of each batch, the quantity of wafers in each batch, or a queue time of the lots in the batch.